



UNITED STATES PATENT AND TRADEMARK OFFICE



UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,451	11/28/2003	Jonathan Sherman	PSI0001DIV	9903
7590	02/05/2007		EXAMINER [REDACTED]	
William C. Fuess FUESS & DAVIDENAS Suite II-G 10951 Sorrento Valley Road San Diego, CA 92121			BOS, STEVEN J	
			ART UNIT [REDACTED]	PAPER NUMBER 1754
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
30 DAYS		02/05/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of Non-Compliant Amendment (37 CFR 1.121)	Application No.	Applicant(s)
	10/724,451	SHERMAN, JONATHAN
	Examiner ***	Art Unit

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

The amendment document filed on _____ is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- 1. Amendments to the specification:
 - A. Amended paragraph(s) do not include markings.
 - B. New paragraph(s) should not be underlined.
 - C. Other _____.
- 2. Abstract:
 - A. Not presented on a separate sheet. 37 CFR 1.72.
 - B. Other _____.
- 3. Amendments to the drawings:
 - A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
 - B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
 - C. Other _____.
- 4. Amendments to the claims:
 - A. A complete listing of all of the claims is not present.
 - B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
 - C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
 - D. The claims of this amendment paper have not been presented in ascending numerical order.
 - E. Other: _____.
- 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4):

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

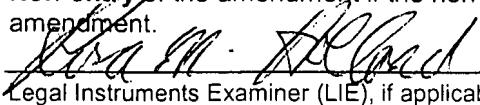
1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.
2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a Quayle action. If any of above boxes 1. to 4. are checked, the correction required is only the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121.

Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a Quayle action.

Failure to timely respond to this notice will result in:

Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a Quayle action; or

Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.


Legal Instruments Examiner (LIE), if applicable

571272-1619
Telephone No.

36. A composite body exhibiting a photocatalytic effect consisting essentially of

a core particle consisting essentially of a material without deleterious effect on a photocatalytic reaction; and

a multiplicity of nanoparticles, each less than 33% the diameter of the core particles, of photocatalytic material upon the surface of the core particle, the photocatalytic material being less than 20% by weight of (i) the combined multiplicity of photocatalytic material nanoparticles and (ii) the core particle.

37. The composite body according to claim 36

wherein the core particle is less than 1 centimeter in diameter; and

wherein each of the multiplicity of nanoparticles is of diameter less than 100 nanometers.

38. The composite body according to claim 36 wherein the core particle's material without deleterious effect on a photocatalytic reaction consists essentially of

a material drawn from the group consisting essentially of silicates and carbonates including silicate and carbonate powders, mineral and mineral composites including calcined clay and wollastonite, metal oxides including zinc oxide, inorganic pigments, and construction aggregates including roofing granules

39. The composite body according to claim 36 wherein the core particle consists essentially of

a polymer.

40. The composite body according to claim 39 wherein the core particle's polymer consists essentially of

polymer drawn from the group consisting essentially of acrylics, acrylonitriles, acrylamides, butenes, epoxies, fluoropolymers, melamines, methacrylates, nylons, phenolics, polyamids, polyamines, polyesters, polyethylenes, polypropylenes, polysulfides, polyurethanes, silicones, styrenes, terephthalates, vinyls.

41. The composite body according to claim 39

wherein the polymer core particle is less than 1 centimeter in diameter.

42. The composite body according to claim 36

wherein the photocatalytic material of the multiplicity of nanoparticles is drawn from the group of metal compound semiconductors consisting essentially of titanium, zinc, tungsten and iron, and oxides of titanium, zinc, tungsten and iron, and strontium titanates.

43. The composite body according to claim 42

wherein the metal compound semiconductor photocatalytic material is combined with a metal or metal compound drawn from the group consisting of vanadium, iron, cobalt, nickel, copper, zinc, ruthenium, rhodium, silicon, tin, palladium, gold, platinum, and silver.

44. The composite body according to claim 36

wherein the photocatalytic material is drawn from the group of metal compound semiconductors consisting essentially of anatase titanium dioxide and zinc oxide.

45. The composite body according to claim 36

wherein the photocatalytic material consists of particles of a diameter from 1 nanometer to 100 nanometers.

46. The composite body according to claim 36

wherein the photocatalytic material consists of particles of diameter from 1 nanometer to 50 nanometers.

47. The composite body according to claim 36

wherein the photocatalytic material consists of particles of diameter from 1 nanometer to 10 nanometers.

48. The composite body according to claim 36

wherein the core particles consist of particles of diameter from 100 nanometers to 1 centimeter.

49. The composite body according to claim 36

wherein weight of the photocatalytic material of the combined multiplicity of nanoparticles is less than 10% of weight of the core particle.

50. A great multiplicity of composite bodies in accordance with claim 36 incorporated in amount from 0.001% to 85% by volume within a composition suitable for use as an additive or a coating.

51. The great multiplicity of composite bodies in accordance with claim 50 incorporated in a composition that further includes one or more materials from the group of building materials consisting of concrete, cement, ceramic, stucco, hard flooring, masonry, roofing shingles, wall

shingles, building siding and swimming pool surfaces.

52. The great multiplicity of composite bodies in accordance with claim 50 incorporated in a composition that is effective as an anti-fouling coating.

53. The composite body according to claim 36 effective in killing by contact any of algae, bacteria, mold or fungus.

54. The composite body according to claim 36 wherein, at a proportion by weight of the photocatalytic material in the composite particle of less than 10%, the efficacy of the photocatalytic material within the composite particle to kill by contact algae, bacteria, mold, and fungus upon the composite particle's surface is at least one-half (.5) as good as is the efficacy of this same photocatalytic material to kill in purest form, making that at least equal killing effect is realized with a five to one (5:1) reduction in the amount of photocatalytic material when this photocatalytic material is upon the surface of the composite particle.



IFW

PTO/SB/21 (04-07)

Approved for use through 09/30/2007. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/724,451
Filing Date	11/28/03
First Named Inventor	SHERMAN
Art Unit	2174
Examiner Name	BOS
Attorney Docket Number	PSI 000101U

ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input checked="" type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input checked="" type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
<input checked="" type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Change of Correspondence Address	<input type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Reply to Missing Parts/ Incomplete Application	<input type="checkbox"/> Landscape Table on CD	
<input type="checkbox"/> <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53		
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	William Fuess, Atty at Law		
Signature	W. C. Fuess		
Printed name	William C. Fuess		
Date	05/07/09	Reg. No.	30,094

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature	William C. Fuess		
Typed or printed name	William C. Fuess	Date	05/07/09

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.